

# APPARATUS AND METHOD FOR PERFORMING CHANNEL ESTIMATIONS USING NON-LINEAR FILTER

## Abstract of the Disclosure

A channel estimation apparatus for WCDMA mobile communication terminal is disclosed. The channel estimation apparatus includes a moving average filter for calculating the average value of pilot signals; an interpolator for computing a tentative estimation value of channel variation by using linear interpolation algorithms based on the average value of pilot signal; a channel compensator for compensating a channel variable of the data signal delayed in a predetermined time based on the tentative estimation value of channel variation; a decision block unit for tentatively determining data signal based on the compensated data signals; a raw channel estimator for computing a raw channel estimation value based on the output signal of the decision block unit and the data signal delayed; and a non-linear filter for computing a final channel estimation value of channel variation based on the tentative estimation value of channel variation and the raw channel estimation value.

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